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| 10/572,620 | 03/17/2006 | Francesco Pessolano | NL 031154 | 7666 |

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| EXAMINER |
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MILLS, FRANK D

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| ART UNIT | PAPER NUMBER |
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2176

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08/06/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/572,620 | Applicant(s) PESSOLANO ET AL. | |
| | Examiner FRANK D. MILLS | Art Unit 2176 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-11 are pending.

Claims 1-11 are rejected.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 9-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

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Claims 9 and 10:

The subject matter of claims 9 and 10 are directed to “control software,” i.e. a computer program. A computer program “not claimed as embodied in computer-readable media [is] descriptive material *per se* and are not statutory because they are not capable of causing functional change in a computer.” see MPEP 2106.01. The claimed computer programs are not embodied on a computer readable medium. Accordingly, the claims are directed to computer software *per se* and are rejected under 35 U.S.C. 101.

Claim 11:

Claim 11 recites an “apparatus” for receiving content from a server via a network. The “apparatus” is construed as software capable of execution on device 102 for receiving content from storage 104 via network 106. see *Specification*, pg.4 ln.1-4. Thus, the claimed apparatus is directed to a computer program. Claimed computer programs are statutory subject matter when claimed as (1) a manufacture, comprising a computer program embodied on a computer readable medium or (2) a process, wherein a computer executes the computer program's instructions. see MPEP 2106.01. The claimed “apparatus” does not expressly recite a computer readable medium or computer hardware (e.g., device 102) for executing the computer program's instructions. Accordingly, the claims are directed to computer software *per se* and are rejected under 35 U.S.C. 101.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al., An Interactive Video Delivery and Caching System Using Video Summarization, Computer Communications Vol. 25, No. 4, pg. 424-435 (Elsevier Science B.V., 01 March 2002).

Claim 1:

Lee discloses:

- *a method of providing electronic content information via a data network* (see fig. 1; see pg. 425-426—Lee illustrates a “video delivery and caching system” in figure 1. see *Lee*, pg. 425. Video content information is retrieved from an origin video server, processed by an application proxy server, transmitted via the Internet to a video caching proxy that is connected to clients. see *Id.*, fig. 1.), and
- *enabling to receive a semantically summarized version of the content information via the network upon a request for the content information* (see figs. 3-4; see Abstract; see pg. 425-426—Lee discloses “a novel scheme that provides users with the video summary... before they download the file.” *Lee*, Abstract. Lee discloses that the application proxy server uses video parsing techniques (e.g.,

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shout boundary detection and face detection) to select key-frames of the video. see *Id.*, pg.426-427; fig. 3. The application proxy server also generates meta-data linking the selected key-frames with temporal ranges in the video. see *Id.*, pg. 427-428; fig. 4. Lee discloses that “upon the client’s request, the server sends this meta-data along with key-frame images to the client. The media player uses this information to render the video so that the user can browse the summary in advance of downloading the video file... the summary contains enough information for the user to decide whether to download the file.” *Id.*, pg. 428.).

Claim 2:

Lee discloses *the method, wherein the summarized version is provided before starting to provide the content information in its entirety* (see Abstract; see pg. 425; pg. 428— Lee discloses “a novel scheme that provides users with the video summary... before they download the file.” *Lee*, Abstract. Lee discloses that the system “first shows key-frames that summarize the video to the user, instead of streaming the video from the beginning. Users can quickly browse through the summary images to decide if they want to download any portion of the video.” *Id.*, pg. 425. Further, Lee discloses that a media player presents a summary to the user, wherein “the summary contains enough information for the user to decide whether to download” the video. see *Id.*, pg. 428.).

Claim 3:

Lee discloses *the method, wherein the providing of the content information comprises supplying the complement to the summarized version after the summarized version has been provided* (see pg. 428—Lee discloses that “When the clients browse the summary (key-frames) they can select any particular frame that interests most. By clicking the specific key-frame, the client can view the video starting from the segment represented by the selected key-frame. Therefore, users can watch the interesting parts of the video without having to stream it from the beginning of the video.” Lee, pg. 428. Accordingly, the method provides the video segment represented by the key-frame selected from the presented summary, i.e. the video segment that complements the selected key-frame.).

Claim 4:

Lee discloses *the method, comprising making the summarized version available for deletion after completion of the providing of the content information in its entirety* (see pg. 430-433—Lee discloses that the method uses a centralized cooperative caching scheme, wherein “a *master cache* coordinates the interaction between the client and the cache array... The request from the client is redirected to the master cache. Upon a request, the master cache provides the key-frames to the client.” Lee, pg. 430. The master cache implements a cache replacement algorithm. *see Id.*, pg. 432. Lee discloses that “When all the segments of a video are removed from caches, the key-frames and prefixes can also be deleted.” *Id.*, pg. 432. Accordingly, when the video

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content is no longer cached for delivery, the key-frames, i.e. summary, is available for deletion.).

Claim 5:

Lee discloses *the method, comprising retrieving the semantically summarized version from storage* (see figs. 6-8; see pg. 428-432—Lee discloses a method “where a master cache is used, but its role is reduced to only controlling the interactions and delivering the key-frames and pre-fixes.” *Lee*, pg. 432. Lee illustrates a video delivery example using hybrid cooperative caching in figure 8. A client requests a video and the request is sent to the master cache. *see Id.*, pg. 432. Lee discloses that “if the requested video is already in the cache, the master cache simply provides the video summary to the client.” *Id.*, pg. 432. Accordingly, the master cache stores video key-frames, i.e. summaries, and provides them in response to a user request.).

Claim 6:

Lee discloses *the method, wherein the summarized version and the content information are stored at different network sites* (see figs. 6-8; see pg. 428-432—Lee discloses a method “where a master cache is used, but its role is reduced to only controlling the interactions and delivering the key-frames and pre-fixes.” *Lee*, pg. 432. Lee illustrates a video delivery example using hybrid cooperative caching in figure 8. A client requests a video and the request is sent to the master cache. *see Id.*, pg. 432. Lee discloses that “if the requested video is not in a cache, the master cache sends a

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request to the origin server... The master cache hosts the key-frames and prefixes, and distributes segments to appropriate proxy caches." *Id.*, pg. 431. Accordingly, the origin server stores the content information and the master cache stores the key-frames, i.e. summaries. Figure 1 illustrates that the video caching proxies and origin video server are two different sites connected by the Internet. see *Id.*, fig. 1.).

Claim 7:

Lee discloses *the method, comprising generating the semantically summarized version upon the request* (see figs. 6-8; see pg. 428-432—Lee illustrates a video delivery example using hybrid cooperative caching in figure 8. A client requests a video and the request is sent to the master cache. see *Id.*, pg. 432. Lee discloses that “if the requested video is not in a cache, the master cache sends a request to the origin server. The video object is segmented and summarized in key-frames by the content analysis service.” *Id.* Accordingly, if the key-frames, i.e. summaries, are not stored on the master cache, the method generates the summary upon the user's request.).

Claim 8:

Lee discloses *the method, wherein the generating of the summarized version and the providing of the content information are carried out at different network locations* (see fig. 1; see pg.425-426; see pg.430—Lee discloses that the content information is stored at the origin server. see *Lee*, fig. 1. The retrieved video “is analyzed by an application proxy server, which can be installed by content providers as a gateway in

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front of their content servers.” *Id.*, pg. 425. Accordingly, the origin server, i.e. content server, and application proxy server, e.g. a gateway server, are two different network locations as depicted in figure 1. *see Id.*, fig. 1. Further, Lee discloses that the application proxy server generates the summarized version using video parsing techniques. *see Id.*, pg. 426, “In this section, we discuss the video parsing techniques used in our application proxy server.” *see also Id.*, pg. 430, “The video object is segmented and summarized in key-frames by the content analysis server... this process is performed by the application proxy server, as described in Section 2.”).

Claim 9:

Claim 9 merely recites a computer program comprising instructions to perform the steps of the method recited in claim 1. Thus, claim 9 is rejected as indicated in the above rejection of claim 1. Further, Lee discloses that the software may be implemented on a home network. Lee discloses a prototype system of the invention wherein the server and the device were connected with a “wireless LAN connection.” *see Lee*, pg. 433-434.).

Claim 10:

Claim 10 merely recites a computer program comprising instructions to perform the steps of the method recited in claim 1. Thus, claim 10 is rejected as indicated in the above rejection of claim 1

Claim 11:

Claim 11 merely recites an apparatus comprising functions for performing the steps of the method recited in claim 1. Thus, claim 11 is rejected as indicated in the above rejection of claim 1. Further, Lee discloses *an apparatus for receiving electronic content information from a server via a data network* (see fig. 9; see pg. 428; see pg.433-434— Lee discloses that “upon the client’s request, the server sends this meta-data along with key-frame images to the client. The media player uses this information to render the video so that the user can browse the summary in advance of downloading the video file... the summary contains enough information for the user to decide whether to download the file.” *Lee*, pg. 428. Accordingly the client media player is an apparatus that receives the video summary. Further, Lee discloses a prototype of the system wherein the interactive video delivery system is implemented on a handheld computer. *see Id.*, fig.9; pg. 433-434.).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANK D. MILLS whose telephone number is 571-270-3172. The examiner can normally be reached on Monday thru Thursday, 9:30 am- 7 pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DOUG HUTTON can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/FRANK D MILLS/
Examiner, Art Unit 2176
July 30, 2010

/DOUG HUTTON/
Supervisory Patent Examiner, Art Unit 2176